

crimping the metal substrate to secure the tab of the metal screening cover onto the metal substrate, ~~whereby~~ wherein the metal screening cover ~~may be~~ is positioned to electromagnetically screen the printed circuit electronics card.

5. (Currently Amended) A method according to claim 4, wherein the crimping is carried out by localized crushing of a portion of the metal substrate over the tab.

6. (Canceled)

7. (Previously Amended) A method according to claim 4, wherein the tab comprises a plurality of tabs, wherein more than one tab is crimped.

REMARKS

Applicant respectfully requests reconsideration of this application in view of the foregoing amendments and following remarks.

I. Claim Status

Claims 4, 5 and 7 are pending in this application. Claims 4 and 5 are herein amended. No new matter is added by these amendments.

II. Specification

The Examiner has objected to the title of the invention as being “not descriptive” and “required [a new title] that is clearly indicative of the invention to which the claims are directed.” Accordingly, applicant has amended the title to recite “A Method of Shielding a Printed Circuit Electronics Card Mounted on a Metal Substrate.” As such, applicant believes that this objection is overcome or otherwise rendered moot.

III. Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 4, 5 and 7 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which applicant regards as the invention.

In particular, the Examiner asserted that “in claim 4 the phrase of ‘a metallic substrate’ (line 4) is unclear if this is referring to the phrase of ‘a metal substrate’ (line 2) previously recited in the preamble.” In addition, the Examiner asserted that “the phrase of ‘a screening cover’ (line 7) is unclear if this is referring to the phrase of ‘a metal screening cover’ (line 2) previously recited in the preamble.”

In response to this rejection, applicant has made various amendments to claim 4 to provide sufficient antecedent basis for the “metal substrate” and “metal screening cover” in the preamble. Based on such amendments, reconsideration and withdrawal of this rejection is respectfully requested.

IV. Claim Rejections Under 35 U.S.C. § 102(b)

Claims 4, 5 and 7 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,601,941 (Tuttle).

With respect to independent claim 4, the Examiner stated that Tuttle discloses a method of producing an assembly comprising: “forming a gutter (recess 30) on a metallic substrate (housing 12) by stamping... mounting a printed circuit (contract trace 50) onto a surface of the metallic substrate 12 adjacent to the gutter...” and “positioning a screening cover 14 having an edge including a tab (annular portion 30) so that the tab rests substantially within the gutter 36... and crimping the substrate by crushing it to secure the tab of the cover onto the substrate...”

After review of Tuttle, it appears that Tuttle discloses a battery contact assembly and a method for attaching a battery to a substrate. In Tuttle, the battery assembly includes a battery encased by a housing and a cover. The housing and cover are crimped together so that the battery is secured in between the housing and cover. After the battery assembly is created it is attached to a receiving portion. In order to attach the battery assembly to the receiving portion the assembly is adhered to the receiving portion with a conductive adhesive. The receiving portion includes a substrate formed of an insulating material such as a glass filled polymeric, ceramic or moldable thermoplastic, which is used for the manufacture of circuit boards. The substrate includes a first and second contact in the form of positive and negative contact traces, which are screen printed onto the substrate or photolithographically etched onto the substrate. The contact traces are provided to connect to the positive and negative contact surfaces of the battery.

The present invention as recited in independent claim 4 discloses a method of producing an assembly: wherein a gutter is formed on a metal substrate by stamping; a printed circuit electronics card is mounted adjacent to the gutter; a metal screening cover having an edge with a tab is positioned so that the tab rests substantially within the gutter; and the metal substrate is crimped to secure the tab of the metal screening cover onto the metal substrate so that metal screening cover is positioned to electromagnetically screen the printed circuit electronics card.

In comparing the present invention with Tuttle, it is readily apparent that Tuttle does not disclose a method of “crimping [a] metal substrate to secure the tab of the metal screening cover onto the metal substrate, wherein the metal screening cover is positioned to electromagnetically screen the printed circuit electronics card.” To the contrary, Tuttle discloses crimping a housing and a cover together to encase a battery, not to electromagnetically screen a printed circuit

electronics card. In accordance with the present invention, as recited in independent claim 4, the printed circuit electronics card is electromagnetically screened after it is mounted onto the metal substrate and encased between the metal substrate and the metal screening cover by crimping. This is distinct from Tuttle.

In addition, the contact traces of Tuttle, which are photolithographically etched onto a substrate, are not positioned between the housing and cover which are crimped together, nor are they adjacent to a gutter. Rather, the contract traces are merely positioned on the surface of the substrate, which receives the battery assembly of Tuttle, so that they may come into contact with the positive and negative contact surfaces of the battery. This is distinct from the present invention as claimed in independent claim 4. Accordingly, independent claim 4 is believed allowable over Tuttle because Tuttle does not teach or suggest at least electromagnetically screening a printed circuit electronics card as claimed.

The dependent claims, as they depend from independent claim 4, are also believed patentable for at least similar reasons as discussed above. However, applicant reserves the right to address individual rejections of the dependent claims should such be necessary and appropriate.

CONCLUSION

Based on the foregoing remarks, it is respectfully submitted that this application is in condition for allowance.

If any issues remain, or if the Examiner has any suggestions for expediting allowance of this application, he is respectfully requested to contact the undersigned at the telephone number listed below.

Favorable consideration is respectfully requested.

AUTHORIZATION

While applicant believes no fees are due, should an extension of time be required, such extension is hereby petitioned and the Commissioner is hereby authorized to charge any additional fees which may be required for the timely consideration of this amendment under 37 C.F.R. §§ 1.16 and 1.17, or credit any overpayment to Deposit Account No. 13-4500, Order No. 1948-4631.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: August 6, 2003

By:

Richard D. Ratchford Jr.
Richard D. Ratchford Jr.
Registration No. 53,865

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.
345 Park Avenue
New York, NY 10154-0053
(212) 758-4800 Telephone
(212) 751-6849 Facsimile